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(71) Applicant (for all designated States except US): SHELL
INTERNATIONALE RESEARCH MAATSCHAPPIJ
B.V. [NL/NL]; Carel van Bylandtlaan 30, NL-2596 The
Hague (NL).

(72) Inventors; and

(75) Inventors/Applicants (for US only): GUENTHER,
Ingrid, Maja [DE/DE]; Hohe-Schaar-Strasse 36,
21107 Hamburg (DE). HAASE, Frank [DE/DE];
Hohe-Schaar-Strasse, 21107 Hamburg (DE).

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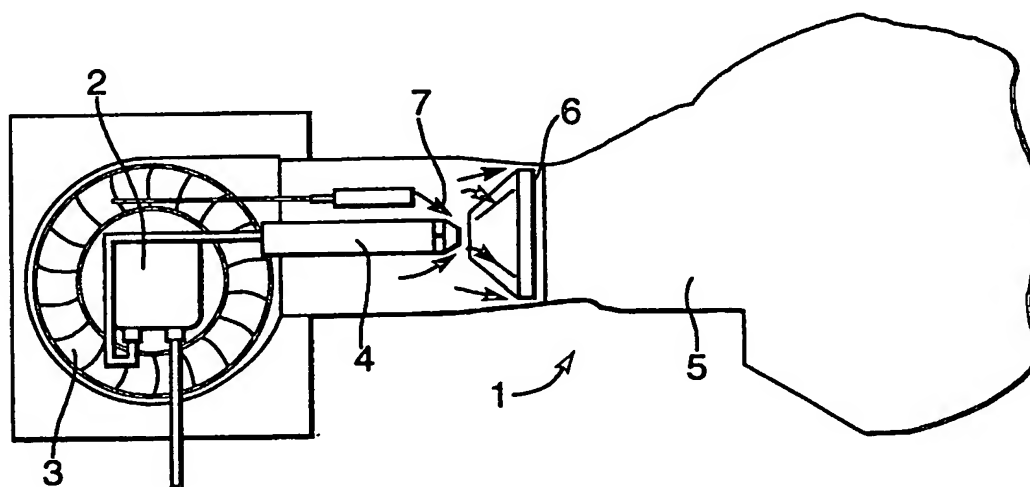
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ance Notes on Codes and Abbreviations" appearing at the begin-
ning of each regular issue of the PCT Gazette.

(54) Title: USE OF A YELLOW FLAME BURNER



(57) Abstract: Use of a Fischer-Tropsch derived fuel in a yellow flame burner, wherein the Fischer-Tropsch derived fuel comprises a Fischer-Tropsch product which contains more than 80 wt% of iso and normal paraffins, less than 1wt% aromatics, less than 5 ppm sulphur and less than 1ppm nitrogen and wherein the density of the Fischer-Tropsch product is between 0.65 and 0.8 g/cm³ at 15 °C.

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Minimum documentation searched (classification system followed by classification symbols)

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Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

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INSPEC, EPO-Internal, WPI Data, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	DATABASE WPI Section PQ, Week 199236 Derwent Publications Ltd., London, GB; Class Q73, AN 1992-292958 XP002227210 & CN 1 057 100 A (WU S), 18 December 1991 (1991-12-18) abstract	1-3, 10-16
Y	---	4-9, 17
Y	US 3 545 902 A (BAILEY FRANK W) 8 December 1970 (1970-12-08) abstract	4, 5
	-/-	

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

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Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax (+31-70) 340-3016

Authorized officer

Bertin-van Bommel, S

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 5 807 413 A (BERLOWITZ PAUL JOSEPH ET AL) 15 September 1998 (1998-09-15) abstract; figure 2; example 2; tables 3,5 column 1, line 20 - line 63 column 2, line 18 - line 19 ----	6-9
Y	US 4 364 725 A (BUSCHULTE WINFRIED) 21 December 1982 (1982-12-21) column 5, line 16 - line 24 ----	17
A	US 5 147 413 A (KIOVSKY THOMAS E ET AL) 15 September 1992 (1992-09-15) abstract; claim 1 ----	1-11
A	DRY M E: "Fischer-Tropsch reactions and the environment" APPLIED CATALYSIS A: GENERAL, ELSEVIER SCIENCE, AMSTERDAM, NL, vol. 189, no. 2, 6 December 1999 (1999-12-06), pages 185-190, XP004272055 ISSN: 0926-860X page 187, paragraph 5 - paragraph 6 -----	1-11

INTERNATIONAL SEARCH REPORT

Information on patent family members

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Patent document cited in search report		Publication date	Patent family member(s)	Publication date
CN 1057100	A	18-12-1991	NONE	
US 3545902	A	08-12-1970	NONE	
US 5807413	A	15-09-1998	AU 717092 B2	16-03-2000
			AU 3600297 A	25-02-1998
			BR 9710862 A	17-08-1999
			CA 2259206 A1	12-02-1998
			CN 1225666 A ,B	11-08-1999
			DE 69709900 D1	28-02-2002
			DE 69709900 T2	05-09-2002
			EP 0948585 A1	13-10-1999
			ES 2170958 T3	16-08-2002
			JP 3387505 B2	17-03-2003
			JP 2000515575 T	21-11-2000
			KR 2000022498 A	25-04-2000
			NO 990486 A	02-02-1999
			TW 411363 B	11-11-2000
			WO 9805740 A1	12-02-1998
			ZA 9706392 A	19-02-1998
US 4364725	A	21-12-1982	DE 2700671 A1	20-07-1978
			AT 383203 B	10-06-1987
			AT 813477 A	15-10-1986
			AU 511042 B2	24-07-1980
			AU 3205777 A	05-07-1979
			BE 862558 A1	14-04-1978
			CA 1080112 A1	24-06-1980
			CH 628724 A5	15-03-1982
			DE 7700459 U1	02-07-1981
			DK 543577 A ,B,	09-07-1979
			ES 465796 A1	16-09-1978
			FI 773541 A ,B,	09-07-1978
			FR 2377002 A1	04-08-1978
			GB 1592490 A	08-07-1981
			GR 64693 A1	14-05-1980
			IE 46538 B1	13-07-1983
			IT 1088397 B	10-06-1985
			JP 1140018 C	24-03-1983
			JP 53088233 A	03-08-1978
			JP 57032289 B	09-07-1982
			LU 78704 A1	17-04-1978
			NL 7713861 A ,B,	11-07-1978
			NO 774006 A ,B,	11-07-1978
			SE 429473 B	05-09-1983
			SE 7713044 A	09-07-1978
			YU 309177 A1	31-08-1982
US 5147413	A	15-09-1992	NONE	